Smithtown Water District
90 E. Main Street
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SMITHTOWN WATER DISTRICT 2014 ANNUAL DRINKING WATER QUALITY REPORT

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INTRODUCTION

The Smithtown Water District is pleased to present to you this year's Water Quality Report. The report is required to be delivered to all residents of our district in compliance with Federal and State regulations. Our goal is to provide you with safe and dependable supply of drinking water everyday. We also want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. The Board of Water Commissioners and District employees are committed to ensuring that you and your family receive the highest quality of water.

We are pleased to report that our drinking water is safe and meets all Federal and State requirements. If you have any questions about this report or concerning your drinking water, please contact Superintendent Christopher Nustad at the Smithtown Water District at (631) 269-9202. If you want to learn more, please attend any of our regularly scheduled Board of Water Commissioners meetings. Please call this office for a schedule of meetings and locations.

WHERE DOES OUR WATER COME FROM?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the USEPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the USEPA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

All of the water the District supplies you comes from beneath the ground and is referred to as groundwater. Your water is stored beneath the ground in a sandy geological formation known as the Aquifer System. Water in the Aquifer System originates as precipitation, which slowly percolates down through the soil. There are three primary formations that lie one on the other to make up the Long Island Aquifer System. These formations in order are: **Glacial** – which contains the newest water to the groundwater system, **Magothy** – this is the largest of the three formations and holds the most water, most of it being hundreds of years old and **Lloyd** – which is a largely untapped layer, containing the oldest water, some that has been held in the system more than 5,000 years. The depth of the Long Island Aquifer System is approximately 600 feet on the north shore, and approximately 2,000 feet on the south shore. Most of our drinking water comes from the Glacial and Magothy formations.

The Smithtown Water District purchases its water from the Suffolk County Water Authority (SCWA). SCWA maintains over 500 public supply wells throughout Suffolk County. We have ten (10) interconnections with Suffolk County Water Authority where water supplied by SCWA enters our distribution system. During 2014, our system did not experience any restrictions of our water service.

FACTS AND FIGURES

The Smithtown Water District was organized in 1948 as a municipal water district, and serves about 20,525 people through 5,864 connections. We have about 84 miles of water main, and 583 fire hydrants (which are painted red and silver). The total amount of water withdrawn in 2014 was 802 million gallons, of which approximately 96% was billed directly to the customers. Most of the non-revenue for water was used in water main flushing, fire fighting, and water main breaks. The District utilizes a unit price billing schedule with the consumer being billed at $1.894 per 1,000 gallons with a quarterly base fee of $21.25 effective January, 2015. Water bills are mailed quarterly.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, bacteria, turbidity, inorganic compounds, nitrate, nitrite, 26 metals including lead and copper, 85 volatile organic compounds, total trihalomethanes, and synthetic organic compounds which include 22 pesticides. The table of detected contaminants describes compounds that were detected in your drinking water. We have also tested for other contaminants that were not found in your drinking water. A complete list can be obtained from our office. The State allows us to test for some contaminants less than once a year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than a year old.

SCWA provides treatment at all wells to improve the quality of the water pumped prior to distribution to the consumer. The pH of the pumped water is adjusted upward to about 7.2 to reduce corrosive action between the water and water mains and in-house plumbing by the addition of lime (calcium hydroxide). Chlorine is also added to the water for disinfecting purposes.

The hardness of our water is considered low (soft). We average 23 ppm. Hardness expressed as calcium carbonate (CACO3), increases the consumption of soap.

SCWA provides the water for quality test results by distribution area as well as by individual well. The Smithtown Water District conducts water quality testing from the distribution system.

It should be noted that all drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791) or the Suffolk County Health Department at (631) 852-5810 or www.epa.gov/safewater

2014 DRINKING WATER QUALITY REPORT - TABLE OF DETECTED PARAMETERS

Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Maximum Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
Inorganic Contaminants							
Copper	No	July 2013	ND - 0.91 0.27[1]	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	July 2013	ND - 109 1.63[1]	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Barium	No	07/22/14	0.004 - 0.016	mg/l	2	MCL = 2.0	Naturally occurring
Sodium	No	03/11/14	7.4 - 10.6	mg/l	n/a	No MCL[2]	Naturally occurring
Chloride	No	03/11/14	14.3 - 29.5	mg/l	n/a	MCL = 250	Naturally occurring
Iron[3]	No	03/11/14	22 - 30	ug/l	n/a	MCL = 300	Naturally occurring
Nitrate[4]	No	07/22/14	2.35 - 3.26	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Nickel	No	07/22/14	11	ug/l	n/a	MCL = 100	Naturally occuring
Synthetic Organic Contaminants Including Pesticides and Herbicides							
None Detected	--	--	--	--	--	--	--
Volatile Organic Contaminants							
None Detected	--	--	--	ug/l	0	MCL = 5	Industrial Chemical Discharge
Unregulated Contaminants							
1,4-Dioxane	No	06/17/14	0.32	ug/l	n/a	MCL = 50	Used in manufacturing process
Chlorate	No	06/17/14	35	ug/l	n/a	No MCL	By-Product of chlorination
Chromium	No	06/17/14	0.33	ug/l	n/a	MCL = 100	Natural deposits
Hexavelent Chromium	No	06/17/14	0.23	ug/l	n/a	No MCL	Natural deposits
Strontium	No	06/17/14	31.7	ug/l	n/a	No MCL	Naturally occurring
Bacteriological							
Total Coliform	No	--	None	positive or negative	n/a	MCL = Positive results in more than 5% of the monthly samples	Commonly found in the environment

Definitions:

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.
Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Milligrams per liter (mg/l) - Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).
Micrograms per liter (ug/l) - Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).
Non-Detects (ND) - Laboratory analysis indicates that the constituent is not present.
pCi/L - pico Curies per Liter is a measure of radioactivity in water.

[1] - During 2013, the District collect 30 samples for lead and copper. The 90% level is presented in the table as the maximum result. The next round of samples will occur in 2016. If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. Smithtown Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/safewater/lead
[2] - No MCL has been established for sodium. However, 20 mg/l is a recommended guideline for people on high restricted sodium diets and 270 mg/l for those on moderate sodium diets.
[3] - Iron has no health effects. At 1,000 ug/L a substantial number of people will note the bitter astringent taste of iron. Also, at this concentration, it imparts a brownish color to laundered clothing and stains plumbing fixtures with a characteristic rust color. Staining can result at levels of 50 ug/L, lower than those detectable to taste buds. Therefore, the MCL of 300 ug/L represents a reasonable compromise as adverse aesthetic effects are minimized at this level. Many multi-vitamins may contain 3,000 or 4,000 micrograms of iron per capsule.
[4] - Nitrate naturally occurs in a number of foods, particularly vegetables. It is also used as preservatives in meats such as bacon. Nitrate is also used to make lawn, garden and agricultural fertilizers and is found in sewage and wastes from farm animals. It generally gets into drinking water by runoff into surface water or by leaching into groundwater after application or after improper sewage or animal waste disposal.

Infants are particularly sensitive to nitrate. High levels of nitrate in drinking water have caused serious illness and sometimes death in infants under 6 months of age. The serious illness occurs because nitrate is converted to nitrite in the body and nitrite reduces the ability of the infant's blood to carry oxygen. Symptoms of the illness can develop rapidly and include shortness of breath and blueness of the skin (blue baby condition). Exposure to nitrate in drinking water at levels above 10 milligrams per liter (10 mg/L) increases the risk of developing the illness. Because the effects of nitrate and nitrite are additive, water containing more than 10 mg/L of total nitrate/nitrite should not be used to prepare infant formula or other beverages for infants.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded State and Federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their healthcare provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

In 2014, the Smithtown Water District continued to implement a water conservation program in order to minimize any unnecessary water use. Residents of the District can implement their own water conservation measures such as retrofitting plumbing fixtures with flow restrictors, adding rain sensors to automatic lawn sprinklers, and by installing water saving toilets. We also ask consumers to repair leaks, install water conservation fixtures and maintain a constant awareness of water conservation in their personal habits.

Automatic sprinkler systems draw a tremendous amount of water. We ask you to refrain from watering between the hours of 4am and 8am and run only every third day. This will help alleviate problems of low pressure during peak morning hours. Sprinklers might have to run more often during July and August, and much less during the spring and fall.

WATER SYSTEM INFORMATION

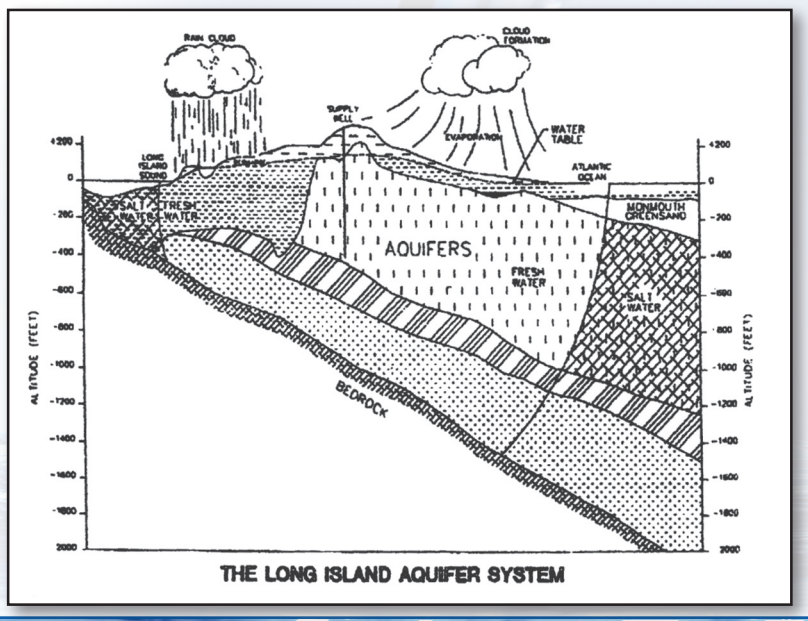
The Smithtown Water District spends some money each year upgrading the infrastructure. We also put some money away each year so major renovations will not affect the overall budget. We own all fire hydrants, and rent them to the fire districts. We are on call 24/7. Our staff attends educational seminars each year to keep pace with the increasing standards imposed on the water industry, and are members of the Long Island Water Conference and American Water Works Association.

ADDITIONAL TESTING

The District was not required to take radiological samples. Also, because of past testing, Suffolk County has been waived from testing for the following SOCs and Pesticides; Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide, Carbaryl, Carbofuran, 3-hydroxycarbofuran, methomyl, oxamyl, alachlor, aldrin, chlordane, dieldrin, enfrin, heptachlor, heptachlor epoxide, lindane, methoxychlor, dibromochloropropane, and ethylene dibromide.

Every three years we are required to perform lead and copper water sampling from specific houses. Houses are chosen according to the NYS Health Department regulations. There are no houses with lead services in our District, so houses were chosen from those built just before the lead solder ban went into effect in the Town of Smithtown (1987). We thank those houses that participate in the testing program. In our 2013 sampling program, one sample exceeded the lead Action Level Limit of 15 ug/L (ppb) and no samples exceeded the copper Action Level Limit of 1.3 mg/L (ppm). In 2013, the 90th percentile result for lead was 1.63 ppb, and for copper it was 0.27 ppm. The range for lead was ND (not detectable) to 109 ppb. The range for copper was ND to 0.91 ppm.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. The Smithtown Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your drinking water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/safewater/lead.



THE LONG ISLAND AQUIFER SYSTEM